

**BY ORDER OF THE COMMANDER
307TH BOMB WING**

**307TH BOMB WING INSTRUCTION
21-124**



11 APRIL 2016

Maintenance

***FOREIGN OBJECT DAMAGE (FOD)
AND DROPPED OBJECT PREVENTION
(DOP) PROGRAMS***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at www.e-publishing.af.mil for downloading.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 307 MXG/MXQ

Certified by: 307 MXG/CC
(Lt Col Leo J. Kamphaus, Jr.)

Supersedes: 307MXGOI21-124,
28 August 2013

Pages: 9

This publication implements Air Force Instruction (AFI) and Air Force Reserve Command Supplement (AFRCSUP) 21-101, *Aircraft and Equipment Maintenance Management* and AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*. This instruction provides guidance and outlines procedures for areas of responsibilities and general procedures for Foreign Object Damage (FOD) control, and the Dropped Objects Program (DOP). This instruction applies to all personnel assigned to the 307th Bomb Wing at Barksdale Air Force Base.

Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of In Accordance With (IAW) Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the OPR listed above using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate chain of command. This publication may be supplemented at any level, but all supplements must be routed to the Office of Primary Responsibility (OPR) listed above for coordination prior to certification and approval. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items.

SUMMARY OF CHANGES

This document has minor changes and should be reviewed in its entirety to ensure compliance. It also supersedes 307 MXG Form 21, 12 November 2014

1. Roles and Responsibilities

1.1. The Maintenance and Operations Group Commanders, Maintenance Officers, Superintendents, Supervisors, and all other personnel are responsible for compliance with this instruction. It is the responsibility of all personnel to comply with all written guidance to ensure all required repairs, inspections, and documentation are completed in a safe, timely and effective manner. Ensure the most current publication is used.

1.2. The vice Wing Commander (CV) is the FOD Prevention Program Manager outlined in AFI 21-101. In his/her absence the Maintenance Group (MXG) Commander (CC) will assume the responsibilities of the FOD Prevention Program Manager. **(T3)**

1.3. The Wing FOD monitor will be located in the MXG Quality Assurance (QA) Office. The minimum responsibilities are as outlined in AFI 21-101. **(T3)**

1.4. The Maintenance Squadron (MXS) Commander and Aircraft Maintenance Squadron (AMXS) Commander will appoint a full time Noncommissioned Officer (NCO) as the FOD monitor for their respective squadron. The minimum responsibilities of the squadron FOD monitor are as follows **(T3)**:

1.5. Ensure FOD containers are available and used in all maintenance production areas.

1.5.1. Ensure FOD containers are installed and clearly marked on all vehicles operated on the flight line.

1.5.2. Disseminate FOD awareness and information throughout areas of responsibility.

1.5.3. Assist (as required) the wing FOD monitor in all FOD/DOP investigations.

2. Foreign Object Damage Program.

2.1. FOD walks/sweeps will be conducted as follows **(T3)**:

2.1.1. Organized FOD walks will be conducted weekly. Supervisors will ensure all available Maintenance Group personnel participate in FOD walks. FOD walks may be increased as deemed necessary by maintenance supervision or the wing FOD monitor.

2.1.2. 307 AMXS

2.1.2.1. Supervision will ensure that FOD Bosses are used as required on assigned sections of flightline.

2.1.2.2. The Superintendent/Expeditors are responsible for all AMXS facilities and the B-52 aircraft flightline parking areas for the 307th Bomb Wing (BW) assigned aircraft. The current flightline FOD walk areas of responsibility are as follows: (see **Attachment 2**) from the taxiway centerline between U and V row all the way to Z row. Areas of responsibility will also include Hangar 1 and Building 6601, Weapons Storage Building and Parking Pad.

2.1.2.3. The Production Supervisor or Flightline Expediter will contact Maintenance Operations Center (MOC) if a requirement for ramp sweeping exists. Ramp sweepers

are scheduled to sweep the 307 BW aircraft parking ramp on Thursdays. If sweepers are not observed, contact MOC. MOC will then contact necessary base personnel to schedule a sweeper.

2.1.2.4. Flightline supervisors will monitor and ensure grounding points are vacuumed as required.

2.1.2.5. Maintenance technicians will conduct a FOD inspections prior to aircraft taxi and before aircraft recovery.

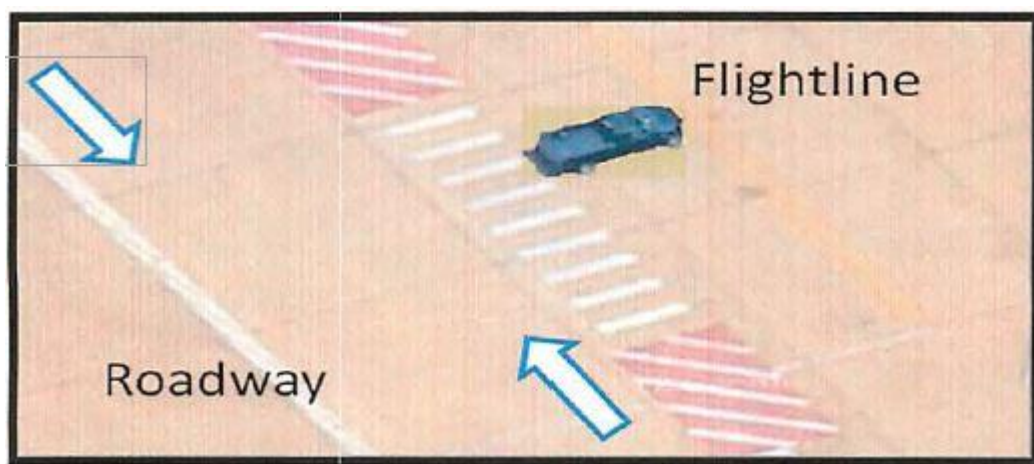
2.1.3. 307 MXS

2.1.3.1. The Superintendent is responsible for all 307 MXS shops. FOD walks will be conducted daily in all MXS work bay facilities.

2.2. FOD Checks

2.2.1. All vehicles entering the controlled area from Flightline Road are authorized to exit the roadway, enter the Entry Control Point (ECP), and perform a roll-over tire FOD check (See Figure 1). FOD checks will be performed on all vehicles and support equipment inside the ECP or prior to crossing a taxiway from anywhere outside the parking ramp. This includes vehicles en route to RED BALL maintenance. **(T3)**

Figure 1. FOD Checks.



2.2.2. If a vehicle has driven off the paved surface or over damaged areas of the ramp, a FOD check of tires must be accomplished immediately upon returning to the paved surface.

2.3. FOD Incidents

2.3.1. All FOD incidents, including bird strikes, will be reported to MOC. MOC will then notify QA. QA will report FOD incidents IAW AFI 21-101. **(T3)**

2.3.1.1. Any engine which experiences internal FOD damage will be reported to Wing Safety and QA. If the engine is installed on an aircraft at the time the damage is discovered, the aircraft will be impounded immediately. If the engine is not installed at the time the damage is discovered, only the engine will be impounded. Impoundment of the aircraft from which the uninstalled engine was removed will be

at the discretion of MXG/CC. When an engine is removed due to FOD damage caused by an internal failure a Product Quality Deficiency Report (PQDR) will be submitted through the Joint Deficiency Reporting System (JDRS). The PQDR will be initiated by the work center finding the damage and will be forwarded to QA for inclusion in the FOD report.

2.3.1.2. All lost or dropped tools/objects will be reported to MOC and QA if items are not recovered within 30 minutes from the time the item was discovered missing. If the potential exists that a lost item is on an aircraft that is about to fly or is already flying, MOC, QA and Supervisor of Flying (SOF) will be notified immediately upon discovery of the missing item. See lost tool procedures in 307BWI 21-132, *Composite Tool Kit (CTK) Management*.

2.3.1.3. When a suspected or confirmed wildlife strike is discovered, enter the appropriate red symbol in the aircraft Air Force Technical Order (AFTO) Form 781A, *Maintenance Discrepancy and Work Document*, and contact MOC.

2.3.1.3.1. Aircrew discovered strike.

2.3.1.3.1.1. Complete the 307 BW Form 125, *307BW Aircrew Wildlife Strike Worksheet*, and fax it to the 307BW Safety Office.

2.3.1.3.2. Maintenance discovered strike.

2.3.1.3.2.1. Bird/wildlife pieces/parts will be retained in a zip lock bag by appropriate maintenance work center and turned over to 307 MXG/QA by Close of Business (COB) along with the 307 BW Form 124, *307 BW Maintenance Discovered Wildlife Strike Worksheet*.

2.4. Flightline Clothing Policy

2.4.1. Hats may be worn on the 307th Ramp (see Attachment 2). Hats must be free of all metal and/or removable objects. Hats will be removed and secured within 50 feet of operating engines as outlined in applicable Mission Design Series (MDS) Technical Orders. Exceptions: Cold weather headgear that snap, button or Velcro can be worn as long as it is securely fastened. **(T3)**

2.4.2. Restricted area badges will be secured with a subdued non-metallic cord or plastic armband when worn on the flightline. Wing Inspection Team (WIT) badges will be secured with a subdued non-metallic cord and clipped to the right collar when worn on the flightline. In addition, when worn around the neck, breakaway lanyards are required, providing the badge is clipped to the outer upper garment. Badges will be removed when entering intakes and/or exhausts or when within the danger areas of running engines. **(T3)**

2.4.3. Metal insignias/badges will not be worn on the flightline. **(T3)**

2.4.4. Wigs, hairpieces, metal hair fasteners, earrings, or any other jewelry/loose items that may fall off without notice, are not authorized on the flightline or industrial areas. **Exception:** Watches may be worn unless prohibited by technical order or AFI. **(T3)**

2.4.5. Escorts of visiting personnel will ensure FOD prevention measures are taken.

2.5. General Procedures

2.5.1. Personal electronic or communication devices (i.e., cell phones, beepers, pagers, portable music/video players, electronic games, etc.) are prohibited on the flightline, munitions areas, hangars and/or other industrial work areas. This restriction does not apply to office, break, locker, ready room, and other common areas. **Exception:** Government and Contractor equipment items issued for the performance of official duties are exempt from this requirement.

2.5.2. Pintle hooks will be closed with lock pin installed when not in use. Pins will be secured to vehicle or support equipment by means of a chain or wire rope IAW Technical Order (T.O.) 1-1A-15, *General Maintenance Instructions for Support Equipment (SE)*, and T.O. 36-1-121, *Standardization of Lunette and Pintle Hook (Type 1, Class 1 & 2) Towing Attachments*

2.5.3. A red X for a FOD inspection will be entered in the AFTO 781A and in Integrated Mission Data System (IMDS) when engine intakes or exhausts are entered for maintenance related processes.

2.5.4. Parts/screw bags will be used and attached to any part or panel removed from an aircraft. Loose hardware will be accurately annotated on the parts bag tag, along with the aircraft tail number. Hinged panels will be inspected to ensure all fasteners are accounted for.

2.5.5. All Foreign Objects (FO) found on aircraft returning from depot maintenance will be reported to QA to photograph prior to removal from the aircraft. FO will be turned over to QA, and reported in the JDRS as an aircraft acceptance deficiency.

2.5.6. Anytime an aircraft is not being readied for flight, engines are not being operated, or an engine is removed from an aircraft, i.e. Facilitate Other Maintenance (FOM), transporting, storage, troubleshooting, etc; the intake(s), exhaust(s), electrical connections, fuel lines, hydraulic lines, oil lines, and port openings will be covered to prevent inadvertent FO ingestion.

2.5.7. Crew compartment areas are to be considered FOD critical areas. Before entering the crew compartment, maintenance personnel must account for all items being taken into this area. Only the items necessary to complete the maintenance action should be taken into the crew compartment area. Upon completion, the technician performing the task must complete a FOD check of the crew compartment area and ensure all tools, equipment, and hardware (safety wire, nuts, washers, etc.) are accounted for.

2.5.8. Maintenance personnel will ensure that aircraft crew stations are FOD free prior to aircrew arrival.

2.6. FOD Meetings

2.6.1. FOD Meetings will be conducted quarterly as a minimum. Whenever the unit exceeds the MAJCOM standard, monthly meetings will be conducted IAW AFI 21-101 AFRC SUP_1.

2.6.1.1. The 307 WG/CV or MXG/CC may increase FOD meeting intervals when deemed necessary to increase FOD awareness.

2.7. FOD Prevention Recognition Program

2.7.1. The purpose of the Wing's FOD Prevention Recognition Program is to recognize personnel for their participation in the prevention of FOD and to promote FOD prevention awareness.

2.7.2. Supervisors shall nominate individuals who have demonstrated sound leadership in the area of FOD prevention. Nominations are to be submitted to the Wing FOD monitor located in the QA office the Friday prior to the Quarterly FOD Meeting.

2.7.3. As a minimum the following criteria will be used to select award winners:

2.7.3.1. Maximum participation in FOD walks.

2.7.3.2. Identifications of potential FOD hazard(s) and submission of recommended corrective action(s).

3. Dropped Object Prevention Program (DOPP).

3.1. Definition: A Dropped Object (DO) is any aircraft part, component, surface, or other item lost during aircrew operations from engine start to engine shutdown, unless intentionally jettisoned.

3.2. The WG/CV serves as the DOPP Program Manager as outlined in AFI 21-101. In his absence the MXG/CC will assume the responsibilities of the Dropped Object Program Manager. (T3)

3.2.1. The WG/CV will appoint the Wing DOPP Monitor who will reside in the MXG QA office. (T3)

3.2.2. Upon discovery of a dropped object, by aircrew or maintenance personnel, report findings to the MOC. MOC will then notify wing safety and QA to have a DO report initiated. MOC and QA must be notified in the event that the dropped object is recovered.

3.2.2.1. Supervisors and the Wing DOPP Monitor will investigate each dropped object to determine the precise cause to ensure a positive corrective action is accomplished.

3.3. Documentation/Inspections

3.3.1. Maintenance personnel will ensure aircraft doors, cowlings, and panels fit properly with special emphasis on the condition and serviceability of all fasteners, nut-plates, and latching devices. Special attention must be given to "last-minute" maintenance actions. This will be accomplished by performing a panel inspection with the criteria identified in LWC-307MXG-10-4, *B52H Dropped Object Prevention Inspection*. (T3)

3.3.2. All dropped objects will be documented on the aircraft AFTO Form 781A and in IMDS with the appropriate red symbol. (T3)

BRUCE R. COX, Col, USAFR
Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 21-101, *Aircraft and Equipment Maintenance Management*, 21 May 2015

AFI 21-101_AFRCSUP, *Aircraft and Equipment Maintenance Management*, 24 August 2015

AFI 33-360, *Publications and Forms Management*, 1 December 2015

AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, 15 June 2012

AFMAN 33-363, *Management of Records*, 1 March 2008

LWC-307MXG-10-4, *B-52H Dropped Object Prevention Inspection*, 25 August 2014

T.O. 1-1A-15, *General Maintenance Instructions for Support Equipment (SE)*, 21 October 2015

T.O. 36-1-121, *Standardization of Lunette and Pintle Hook (Type 1, Class 1 & 2) Towing Attachments*, 24 August 2007

307BWI 21-132, *Composite Tool Kit (CTK) Management*, 27 August 2013

Prescribed Forms

307 BW Form 124, *307BW Maintenance Discovered Wildlife Strike*

307 BW Form 125, *307BW Aircrew Wildlife Strike Worksheet*

Adopted Forms

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFI—Air Force Instruction

AFRC—Air Force Reserve Command

AFRCSUP—Air Force Reserve Command Supplement

AFMAN—Air Force Manual

AFRIMS—Air Force Records Information Management System

AFTO—Air Force Technical Order

AGE—Aerospace Ground Equipment

AMXS—Aircraft Maintenance Squadron

BW—Bomb Wing

CC—Commander

COB—Close of Business

CV—Vice Wing Commander

DO—Dropped Object
DOP—Dropped Object Prevention
DOPP—Dropped Object Prevention Program
ECP—Entry Control Point
FOD—Foreign Object Damage
FO—Foreign Object
FOM—Facilitate Other Maintenance
IAW—In Accordance With
IMDS—Integrated Maintenance Data System
JDRS—Joint Deficiency Reporting System
MDS—Mission Design Series
MOC—Maintenance Operations Center
MXG—Maintenance Group
MXS—Maintenance Squadron
NCO—Noncommissioned Officer
NDI—Non Destructive Inspection
OPR—Office of Primary Responsibility
PQDR—Product Quality Deficiency Report
QA—Quality Assurance
RDS—Records Disposition Schedule
SOF—Supervisor of Flying
T.O—Technical Order
WG—Wing
WIT—Wing Inspection Team

Terms

DOP—Dropped object is any aircraft part, component, surface, LO coating exceeding 8 inches in any dimension or other item lost during aircrew operations (unless intentionally jettisoned) from engine start to engine shutdown.

FOD—Any damage to an aircraft, engine, aircraft system, component, tire, munitions, or SE caused by a foreign object(s) (FO) which may or may not degrade the required safety and/or operational characteristics of the aforementioned items.

Impoundment—Aircraft or equipment is impounded when intensified management is warranted due to system or component malfunction or failure of a serious or chronic nature or damaged by FOD.

Attachment 2

AREAS OF RESPONSIBILITY

Figure A2.1. Areas of Responsibility.

